



Life in the Rocky Intertidal Zone

Tidepools provide a home for many animals. They are created by the changing water level, or tides. The high energy waves makes this a harsh habitat, but the animals living here have adapted over time. When the earth, sun and moon align during the full and new moon we have extreme high and low tides. Generally, there are two high tides and two low tides a day. An example of low and high tide is seen on the right.

There are three zones within the tidepools. The high zone, the middle zone, and the low zone. The process of evolution has determined where the animals can live and thrive. The tidepools at Cabrillo are protected and have been monitored by the National Park Service since 1990. You may notice bolts in the rocky intertidal, these are used to assist scientists in gathering data to monitor changes.

Tidepool Etiquette:

Human impact can hurt the animals. As you explore the tidepools, you may touch the animals living here, but only as gently as you would touch your own eyeball. Some animals may die if moved even a few inches from where they are found. Federal law prohibits collection and removal of any shells, rocks and marine specimens. Also, be aware of the changing tides, slippery rocks and unstable cliffs. **Have fun exploring!**



Low Tide



High Tide

High Zone (Supralittoral or Spray Zone)

The high zone is covered by the highest tides. Often this area is only sprayed by the crashing waves. The animals who live here must endure a long time without water. Below are common examples of what you can find in the high zone.



Barnacle



Owl Limpet



Keyhole Limpet



Shore Crab



Gooseneck Barnacles



Mussels



Periwinkles



Chiton

**Middle Zone
(Littoral Zone)**

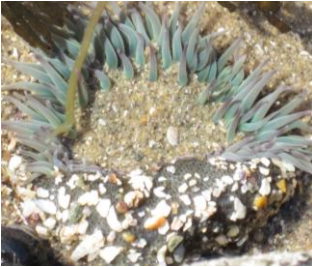
The middle zone is covered by the highest tides and exposed by the lowest tides. The animals here have to be able to live both in and out of water. The anemones close up and cover themselves in bits of shell and other debris in order to retain moisture during low tide. Some of the animals in this zone like to hide under surfgrass, because it provides shelter. Below are some examples of species in the middle zone.



Brooding Anemones
Open



Closed



Solitary Anemone



Aggregate Anemones
Closed



Open



Hermit Crab



Sea Hare



Surfgrass



Black Tegula Snail

**Low Zone
(Sublittoral or
Subtidal Zone)**

The low zone is only uncovered by the lowest tides. Animals here are submerged in water most of the time. Below are some animals found in the low zone.



Knobby Sea Star



Bat Star



Octopus



Eel



Opaleye



Sculpin



Rosy Nudibranch